

CLAIMS

1. A method for data transmission via several data channels in a network linking several units to one another, the units functioning as data sources, data sinks, or transceivers, the method comprising the steps of:

assigning a first data channel to a first predetermined one or more connection segments;

assigning said first channel to a second predetermined one or more connection segments not

including said first predetermined one or more connection segments; and

simultaneously transmitting data between two units across said first predetermined one or more connection segments via said first data channel, and data between two or more other units across said second predetermined one or more connection segments via said first data channel.

2. The method of claim 1, wherein the network has a linear network topology.

3. The method of claim 1, wherein the network has a ring network topology.

4. The method of claim 3, wherein the network is a Media Oriented System Transport or Media Oriented Synchronous Transfer (MOST) network.

5. The method of claim 3, wherein data are transmitted in only a first direction over said first predetermined one or more connection segments, and wherein data are transmitted in only a second direction over said second predetermined one or more connection segments, wherein said first direction and said second direction are the same direction.

6. The method of claim 4, wherein data are transmitted in only a first direction over said first

2 predetermined one or more connection segments, and wherein data are transmitted in only a second
3 direction over said second predetermined one or more connection segments, wherein said first
4 direction and said second directions are the same direction.

1 7. The method of claim 5, wherein said first and second directions are clockwise around the ring
2 network.

1 8. The method of claim 5, wherein said first and second directions are counterclockwise around
2 the ring network.

1 9. The method of claim 6, wherein said first and second directions are clockwise around the ring
2 network.

1 10. The method of claim 6, wherein said first and second directions are counterclockwise around
2 the ring network.